

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Group 2 of 3

Environmental Operations, Shared Services/Energy Systems

Permit Number: R30-03900004-2010

Plant Identification Number: 03900004

Permittee: Union Carbide Corporation

A Subsidiary of The Dow Chemical Company

Facility Name: Technology Park Operations, South Charleston

Mailing Address: P.O. Box 8361

South Charleston, WV 25303

Revised: N/A

| | |
|--------------------|---|
| Physical Location: | South Charleston, Kanawha County, West Virginia |
| UTM Coordinates: | 438.7 km Easting • 4,245.5 km Northing • Zone 17 |
| Directions: | From Charleston take Kanawha Turnpike exit. Travel west on Kanawha Turnpike approximately 0.5 miles. |

Facility Description

This Permit (Group 2 of 3) will cover Facility support activities and infrastructure operations. The research and development groups (Group 1 of 3) provide experimental, analytical, and engineering support for the development of new products, process technology for manufacturing, and support for existing products and processes. Group 3 of 3 will cover Facility manufacturing operations. Primary SIC Code for this Facility: 2869

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|--|--|--|
| Regulated Pollutants | Facility Wide Potential Emissions | Facility Wide 2009 Actual Emissions |
| Carbon Monoxide (CO) | 17.79 | 10.4 |
| Nitrogen Oxides (NO _x) | 37.71 | 1.9 |
| Particulate Matter (PM ₁₀) | 0.63 | 0.06 |
| Total Particulate Matter (TSP) | 0.77 | 0.06 |
| Sulfur Dioxide (SO ₂) | 4.01 | 0.01 |
| Volatile Organic Compounds (VOC) | 195.85 | 78.5 |
| <i>PM₁₀ is a component of TSP.</i> | | |
| Hazardous Air Pollutants | Facility Wide Potential Emissions | Facility Wide 2009 Actual Emissions |
| Toluene | 10.5 | 1.11 |
| Total HAPs (Including Toluene) | 15.0 | 3.88 |

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit over 100 tons per year of VOC's and 10.5 tons per year of Toluene. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant and over 10 tons per year of a single HAP, Union Carbide Corporation's Technology Park Operations is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

| | | |
|--------------------|---------------------------|--|
| Federal and State: | 45CSR6 | Open burning prohibited. |
| | 45CSR7 | Particulate Matter emissions |
| | 45CSR11 | Standby plans for emergency episodes. |
| | 45CSR13 | |
| | WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting. |
| | 45CSR30 | Operating permit requirement. |
| | 45CSR34 | Emission Standards for HAPs pursuant to 40 C.F.R. Parts 61 and 63. |
| | 40 C.F.R. Part 61 | Asbestos inspection and removal |

| | | |
|-------------|------------------------------|--|
| | 40 C.F.R. Part 82, Subpart F | Ozone depleting substances |
| State Only: | 45CSR4 45CSR42 | No objectionable odors. Greenhouse Gas Emissions Inventory Program |

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

| Permit or Consent Order Number | Date of Issuance | Permit Determinations or Amendments That Affect the Permit (<i>if any</i>) |
|-----------------------------------|---------------------|---|
| R13-2082A | 4/10/2003 | |
| | | |

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Changes made to the Title V Permit since the last revision is summarized below:

1. *45CSR30 – Requirements for Operating Permits*

Previously, the facility was divided into 2 Groups. Group 1 is Research and Development. Group 2 has now been divided into two separate Title V Permits, Group 2 and Group 3. The Environmental Operations and Shared Services/Energy Systems will be included in Group 2. The Market Development Plant will be included in Group 3. This division is a result of the intention of the Permittee to transfer the Group 3 Permit to a new Owner/Operator in the future.

The carpentry and welding shops have been permanently shutdown. The applicable emission units and conditions have been removed from the permit. Various other emission units have been removed from the facility and removed from the equipment list. Some of the previous emission units have been placed in the Group 1 of 3 Permit and removed from this one.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. *45CSR27 - To prevent and control the emissions of Toxic Air Pollutants:*

The potential emissions for the entire facility are lower than the threshold values in 45CSR27 Table A, so the facility is not subject to the Best Available Technology requirements.

2. 40CFR63, Subpart ZZZZ – *Reciprocating Internal Combustion Engine MACT*

This facility is a major source of HAP's. The diesel fuel fired generators located at the Technology Park Operations were in service in 1997, and are 1,150 KW, which is over 500 brake HP. They are for emergency use and/or limited use (<100 hrs/year operation).

From 40 CFR§63.6590(b)(3) (iii) and (iv):

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

3. 40CFR63, Subpart GGGGG – *Site Remediation MACT*

40 CFR Part 63 Subpart GGGGG was published in the Federal Register on October 8, 2003. This rule could apply to the Technical Center but does not impact current operations.

4. 40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)

Group 2 does not have a pollutant specific emissions unit (PSEU) for any pollutant meeting the applicability requirements of 40 C.F.R. §64.2 and therefore does not need to have submitted a CAM plan in accordance with the CAM rule.

Group 2 is not subject for the following reasons:

40CFR§64.2(a)(3) – This Group does not have a potential pre-control device equal to or greater than 100 percent of the amount, in tons per year, of any pollutant that would require the facility to be classified as a major source.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

| | |
|-----------------|-------------------|
| Beginning Date: | October 13, 2010 |
| Ending Date: | November 12, 2010 |

All written comments should be addressed to the following individual and office:

Mike Egnor
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Mike Egnor
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1208 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

The facility has removed the 731 gasoline water pump from service, and has been removed from the site. This unit has been removed from the equipment list, and the previous Condition 5.1.4 has been deleted from the Permit.

The draft fact sheet initially stated that the facility had a PTE of total HAP's of 10.79 TPY, with no single HAP greater than 10 TPY. The facility has determined that the Potential to Emit (PTE) of Toluene is 10.5 TPY, and Total HAP's of 15 TPY. This has been updated in this fact sheet. There are no additional requirements to the permit as a result of this new information.